



All Dressed Up to Brave the Wind

Full Mitigation Best Practice Story

Brazoria County, Texas

Brazoria County, TX – During man-made and natural disasters, the Freeport Fire and EMS Department is designated as the Emergency Operations Center and the Freeport Police Department as the Incident Command Post for the city of Freeport and several surrounding cities.



After years of the tedious task of boarding up the buildings to secure them during impending disasters, the city applied for and received a grant to install hurricane shutters.

“Being pro-active, we would board windows prior to storm threats,” said Billywayne Shoemaker, Captain of Freeport’s Fire Department. “Nine times out of ten, the wood we had cut last year could not be used. We would have to measure and re-cut all the wood, bring lifts in for the second story and physically hold the boards up while somebody drilled them in.”

“At the fire station we would have to climb up on a ladder with 4 by 8 sheets of plywood. It was very dangerous. Between the two buildings, you’re talking a minimum of four people, two days work, aerial lifts, ladders, and the danger of holding pieces of plywood while you’re standing on a ladder and drilling,” continued Shoemaker.

The shutter retrofit project began in August 2006 and was completed June 2007 at a cost of \$38,394. Freeport received a grant of \$28,795 from the Federal Emergency Management Agency (FEMA) through its Hazard Mitigation Grant Program (HMGP).

HMGP pays 75 percent on approved projects that will prevent or reduce damage from storms and other natural disasters. These grants are made available for both public and private projects.

“We went through the process of applying for the Hazard Mitigation grant. We have a history of hurricanes here on the Gulf,” said John Stanford, Fire and EMS Chief.

Hurricane shutters were a logical choice because they save lives and property. The demand continues to grow as more individuals realize their value, and they offer more than just protection from hurricane-force winds and flying debris.

Depending on the type of shutter, they can add security, increase the resale value of property, decrease chances of looting and theft, give protection from outdoor noise, allow for light control, add visual appeal to homes and buildings, and decrease insurance premiums.

In addition, they act as a time-saver. “One of the problems that we’ve run into in the past is that when a storm is imminent a lot of windows have to be boarded up. It’s very labor intensive. Another problem is when you have an EOC such as our building and you keep a crew back for a storm with all the windows boarded up it gets to be a little claustrophobic,” said Stanford.

Electric roll-down shutters were placed on all windows and doors of the police department. A manual override was also installed in the event of power loss. The fire department also has electric roll-downs on the first floor as well as manual roll-downs on the second.

“We looked at different shutter manufacturers and different types of shutters. There are many out there,” Stanford said. “We wanted those that were good, substantial, and cost effective.”

“With the shutters in place, we can have both buildings shuttered down and secured in thirty minutes. Lots of man hours are saved, and a lot of safety factors versus people getting injured trying to put plywood in place, getting splinters, or falling,” added Shoemaker.

Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region VI**

State: **Texas**

County: **Brazoria County**

City/Community: **Freeport**

Key Activity/Project Information

Sector: **Public**

Hazard Type: **Hurricane/Tropical Storm; Coastal Storm**

Activity/Project Type: **Retrofitting, Non-structural**

Structure Type: **Masonry, Reinforced**

Activity/Project Start Date: **08/2006**

Activity/Project End Date: **06/2007**

Funding Source: **Hazard Mitigation Grant Program (HMGP)**

Funding Recipient: **Critical Facility - Police/Fire**

Application/Project Number: **DR 1624-011 and DR 1606-049**

Activity/Project Economic Analysis

Cost: **\$38,394.00 (Actual)**

Activity/Project Disaster Information

Mitigation Resulted From Federal
Disaster? **No**

Value Tested By Disaster? **No**

Repetitive Loss Property? **No**

Reference URLs

Reference URL 1: <http://www.fema.gov/government/grant/hmgp/index.shtm>

Reference URL 2: <http://www.fema.gov/plan/prevent/howto/how2017.shtm>

Main Points

- After years of the tedious task of boarding up the buildings to secure them during impending disasters, Brazoria County applied for and received a grant to install hurricane shutters.
- The shutter retrofit project began in August 2006 and was completed June 2007 at a cost of \$38,394.
- FEMA's HMGP paid for 75 percent of the funds.
- Electric roll-down shutters were placed on all windows and doors of the police department. A manual override was also installed in the event of power loss.
- The fire department also has electric roll-downs on the first floor as well as manual roll-downs on the second.
- With the shutters in place, both buildings can be shuttered down and secured in thirty minutes, saving not only time, but making the process a lot safer.



View of roll-down shutters at Police Department



Roll-down shutters on door and window at the Fire Department